

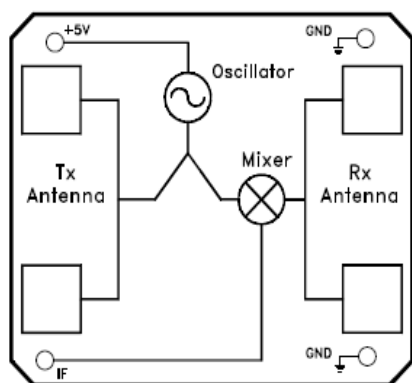
GH100 Microwave Motion Sensor Module

X BAND SENSOR MODULE

Description

GH100 Miniature Microwave Motion Sensor Is a X-Band Bi-Static Doppler transceiver module. Its built-in Dielectric Resonator Oscillator (DRO) and a pair of Microstrip patch antenna array, make it ideal for OEM usage in motion detection equipment.

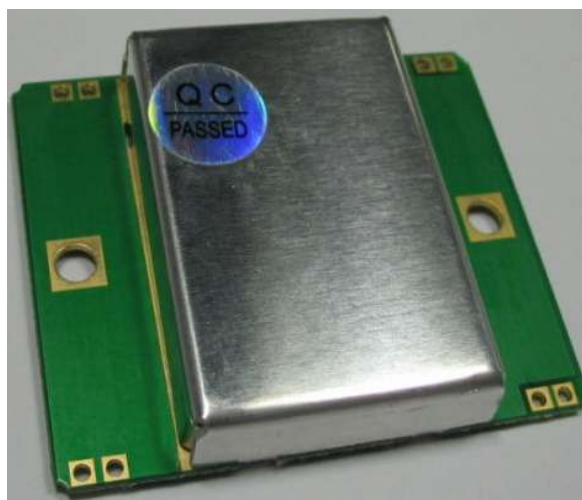
This module is ideally suitable for false alarms reduction in intruder detectors when work together with Passive Infrared (PIR) sensor. It can also be used for auto-door opening and vehicle speed measurement.



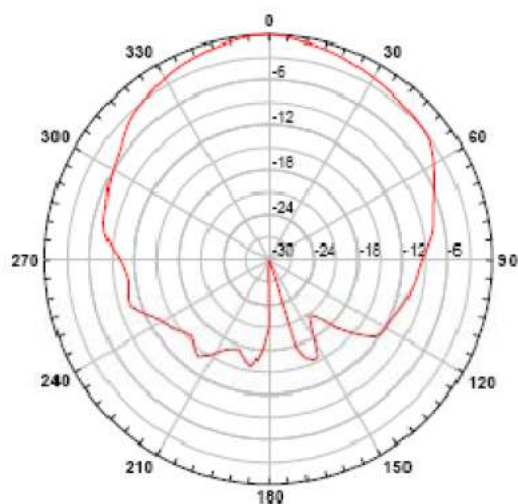
Block Diagram

Features

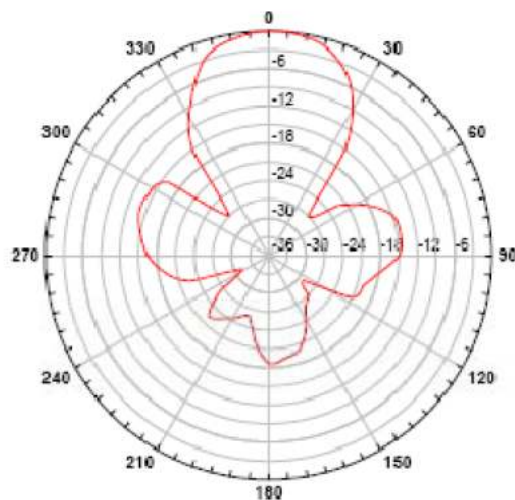
- Low current consumption
- CW or Pulse operation
- Flat profile
- Microwave-PIR motion detector
- Speed measurement
- Lighting control
- Long detection range



Antenna Beam Pattern



Azimuth



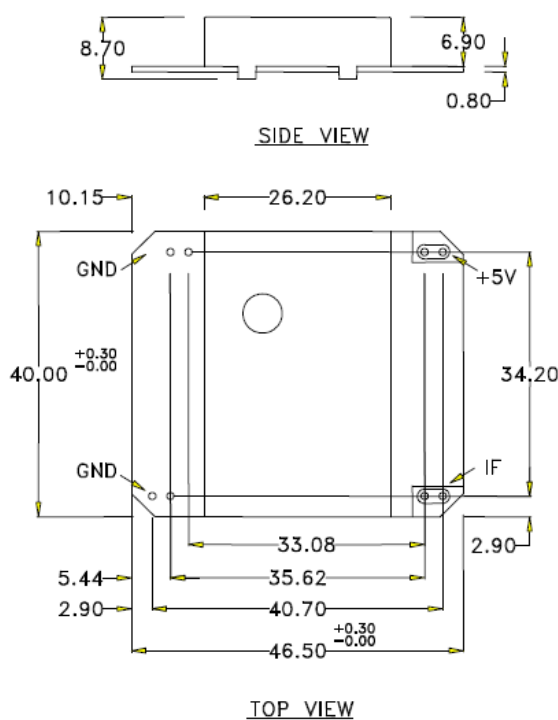
Elevation

Unless noted otherwise, the specifications are measured with +5VDC, CW operation, 12 kΩ load at ambient temperature of +25°C.

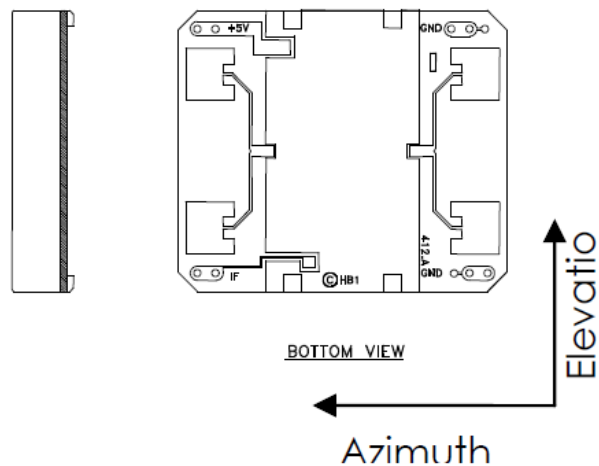
Parameter	Min	Typ.	Max	Units
Frequency Setting	10.520	10.525	10.530	GHz
Radiated Power (EIRP)	10	13	14	dBm
Spurious Emission			-30	dBm
Settling Time		3	6	μSec
Received Signal Strength		140		μVp-p
Noise			3	μVrms
Antenna Beam-width (3 dB) - Azimuth		80		°
Antenna Beam-width (3 dB) - Elevation		40		°
Supply Voltage	4.75	5.00	5.25	VDC
Current Consumption		30	40	mA
Pulse Repetition Frequency		2		KHz
Pulse Width	10			μSec
Operating Temperature	-15		55	°C
Weight		17		gm

Technical Specifications

Outline diagram (All dimensions in mm)



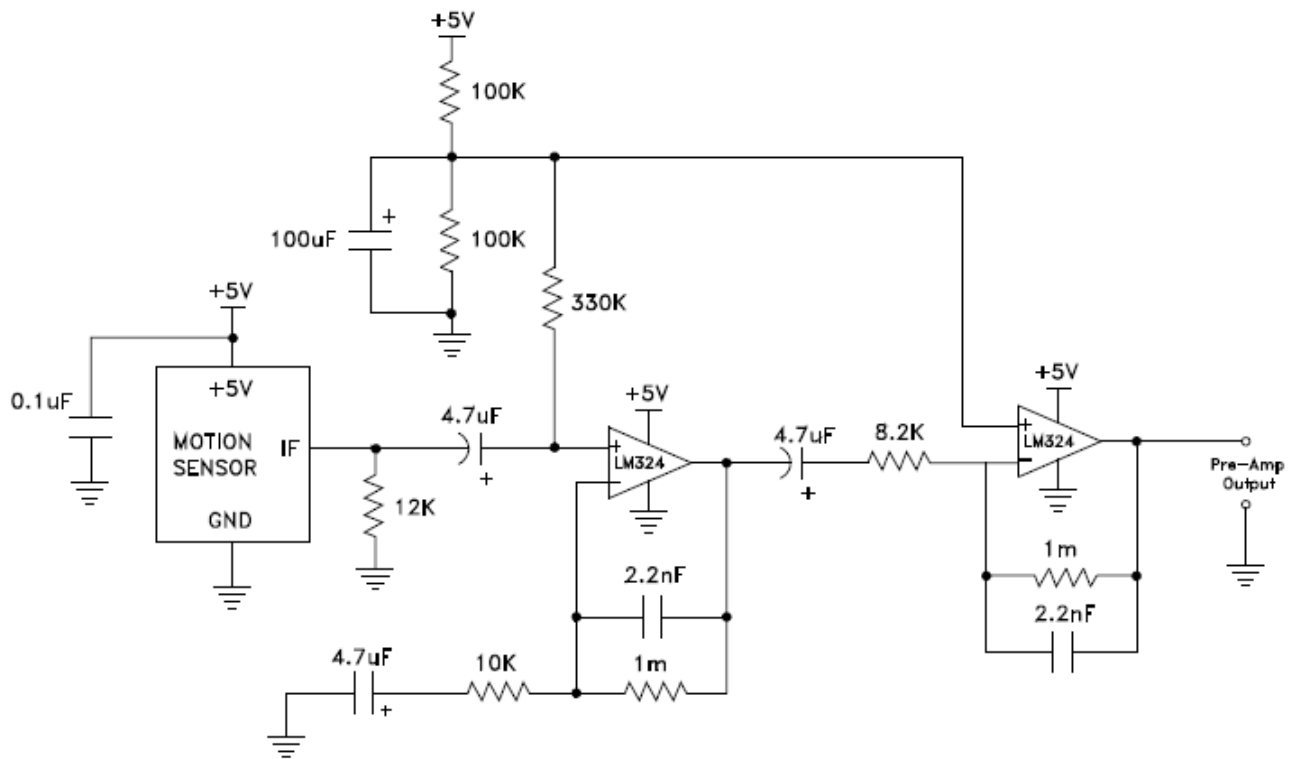
CONNECTION HOLE CHART		
DIAMETER	QTY	PLATED THRU
1.0	8	YES



(40*46.5*8.7 mm)

The GH100 is pin-to-pin compatible with HB100.

Annex 1: Amplifier Circuit (CW operation)



Annex 2: Amplifier Circuit (Pulse operation, PRF =2 KHz, Duty Cycle = 4%)

